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Atty Dkt. No.: CLON-107
USSN: 10/765,244

AMENDMENT

Please incorporate the following amendments into the subject application.

In the Claims:

Claims 1-29. (Cancelled)

30. (Currently amended) A nucleic acid which encodes a fusion protein comprising:

- a) a reef coral fluorescent protein reporter domain, and
- b) a protein degradation domain, wherein said protein degradation domain comprises:

- i) a PEST targeting sequence; and
- ii) at least one flanking sequence N-terminal of the PEST sequence comprising from about 5 to about 50 residues; and

wherein said fusion protein is at least 4 times more sensitive as a reporter of proteasome inhibition than a fusion protein that includes a d1 protein degradation domain.

31. (Cancelled)

32. (Currently amended) The nucleic acid of Claim ~~34~~ 30, wherein said PEST targeting sequence is a MODC PEST targeting sequence.

33. (Previously presented) The nucleic acid of Claim 32, wherein said PEST targeting sequence consists of amino acids 422-461 of MODC.

34. (Cancelled)

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35. (Currently amended) The nucleic acid of Claim ~~34~~ 30, wherein said targeting sequence comprises aa 410 to 461 of MODC.
36. (Previously presented) The nucleic acid of Claim 30, wherein said nucleic acid is a DNA.
37. (Previously presented) The nucleic acid of Claim 30, wherein said nucleic acid is provided in a vector.
38. (Previously presented) The nucleic acid of Claim 37, wherein said vector is a plasmid or viral vector.
39. (Previously presented) The nucleic acid of Claim 30, wherein said nucleic acid is a RNA.
40. (Previously presented) The nucleic acid of Claim 30, wherein said reef coral fluorescent protein is selected from the group consisting of: ZsGreen, ZsYellow, AmCyan, AsRed, DsRed and HcRed.
41. (Previously presented) The nucleic acid of Claim 30 wherein said reporter domain is ZsGreen.
42. (Previously presented) A fusion protein encoded by the nucleic acid of Claim 30.
43. (Previously presented) A transgenic cell or the progeny thereof comprising the nucleic acid of Claim 30.
44. (Previously presented) A method of evaluating proteasome activity in a cell, said method comprising:

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introducing into said cell a nucleic acid according to Claim 30 or a protein encoded thereby; and

detecting the presence of reporter activity in said cell to assess proteasome activity in said cell.

45. (Previously presented) The method of Claim 44, wherein said method comprises introducing said fusion protein into said cell.

46. (Previously presented) The method of Claim 44, wherein said method comprises introducing said nucleic acid into said cell.

47. (Previously presented) The method of Claim 44, further comprising contacting said cell with an agent prior to said detecting.

48. (Previously presented) The method of Claim 44, further wherein said detecting comprises using flow cytometry or microscopy.

49. (Previously presented) The method of Claim 44, further comprising introducing into said cell a nucleic acid encoding a fusion protein comprising:
a fluorescent protein reporter domain and
a protein of interest.

50. (Previously presented) the method of Claim 44, further comprising introducing into said cell a nucleic acid encoding a fusion protein comprising:
a fluorescent protein reporter domain and
a second protein degradation domain.